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ABSTRACT

The academic achievement of limited-English-speaking (LEP) students has long been a major national educational concern. This digest focuses on: (1) factors that promote or inhibit academic achievement in a second language; (2) the length of time needed for LEP students to achieve at comparable levels in school with their native English-speaking peers; (3) the transfer of skills in the first language to English; (4) program models that promote academic achievement in a second language; and (5) the assessment of academic achievement. (VWL)

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ERIC Clearinghouse on Languages and Linguistics
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ERIC Digest

Academic Achievement in a Second Language

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The academic achievement of limited-English-proficient (LEP) students has long been a major national educational concern. Chamot & O'Malley (1987) suggest that, before LEP students are confronted with achieving in the regular classroom, they should be able to use English as a tool for learning subject matter. Often, LEP students become proficient in communication skills within a short time after their arrival in the United States. Sometimes, as a result of their communicative competence, these students are too quickly mainstreamed into the regular classroom where they encounter difficulties understanding and completing school work in the more cognitively-demanding language needed for successful performance in academic subjects. Basic proficiency is not adequate as language minority students do not have exposure to, or lack an understanding of, the vocabulary and context-specific language needed to perform the more demanding tasks required in academic courses (Short & Spanos, 1989). Cummins (1982) discusses the difference between the language needed for communication and the language necessary for achievement in school in terms of context-embedded and context-reduced language. Context-embedded language provides non-linguistic supports, such as facial expressions, to give participants contextual information about what is being communicated. Context-reduced language, such as that found in most textbooks, provides only limited contextual information or extralinguistic support.

Factors that Promote or Inhibit Achievement in L2

Cognitive development and first language proficiency. Second language acquisition research has shown that the development of the first language has a significant influence on the development of second language proficiency. The lack of continuing first language development has been found, in some cases, to inhibit the levels of second language proficiency and cognitive academic growth. Saville-Troike (1984, p214) reports that "in almost all cases, bilingual instructors' judgments of students' relative competence in native language studies coincided with the same students' relative achievement in English." Hakuta (1990) views native language proficiency as a strong indicator of second language development.

Age. Snow & Hoefnagel-Hohle (1977) suggest that older students are better second language learners because they have achieved a higher level of cognitive maturity in their first language. Cognitive maturity, knowledge, and experience in the first language transfer to the second language. In contrast, Long (1990) concludes that there are maturational constraints on language learning, and that rate and level of attainment are contingent upon the age at which learning begins. He suggests that a sensitive period occurs in language learning. Learning that takes place during this period is successful, and learning taking place later is limited. Collier (1989) maintains that, for academic achievement, it does not matter when second language learning begins, as long as cognitive development continues in the first language at least through age 12.

Uninterrupted academic development. It is important not to limit the academic development of LEP students while they are learning English. Instruction focusing on communication skills only for 2-3 years will leave LEP students 2-3 years behind their English-speaking peers in school subjects (Collier & Thomas, 1989).

Attitude and individual differences. Oxford (1989) maintains that "language learning styles and strategies appear to be among the most important variables influencing performance in a second language." Saville-Troike (1984) found, in one study, that students who had active and competitive coping styles, and a more positive attitude toward learning English achieved better in school.

Length of Time Needed To Achieve at Comparable Levels with Native-English-Speaking Peers

In a study conducted by Cummins (1981) of Canadian immigrants, schooled entirely in English since arrival to Canada, learners took approximately 5-7 years to achieve comparable grade norms on achievement tests with their native-speaking peers. Collier (1987) and Collier and Thomas (1988) studied the length of time it took for immigrants to achieve norms comparable to native English speakers on standardized achievement tests. Subjects were between age 4 and 16 when they arrived in the United States, had been in the country for 2-6 years, and had received instruction exclusively in English since their arrival. Results showed that children who were under 12 when they arrived, and who had had at least two years of schooling in their native country, reached the 50th percentile on reading, language arts, science, and social studies tests 5-7 years after arrival. Students arriving between 4 and 6, who had received little or no schooling in their native language, had not reached the 50th percentile after 6 years, and were expected to reach it after 7-10 years. The studies also found that adolescent arrivals studying only in English need 7-10 years to achieve at equal levels with native peers, and, if unable to continue the study of academic subjects while learning English, will not have enough time left in school to make up lost years of academic instruction.

A number of studies comparing the achievement of students schooled in English only and bilingual education programs, found that, after 4-5 years of instruction, bilingual program students made dramatic academic gains and the English-only group dropped below their grade level. "L1 instruction throughout elementary school years, coupled with gradual introduction of the second language, seems to produce a consistent pattern of greater achievement in the second language at the end of 4-7 years of schooling, even though the total number of hours of instruction in the second language may be dramatically smaller when compared with schooling in the second language only" (Collier, 1989, p522).

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Transfer of Skills from L1 to L2

Cummins (1982) refers to the language needed for academic success as cognitive academic language proficiency (CALP). This type of proficiency is related to cognitive skills and conceptual knowledge, and can be transferred from the native language to English. Saville-Troike (1988, p5) describes transfer as "a preexisting knowledge base for making inferences and predictions" or a "preexisting script for school." Hakuta gives the example that "a child learning about velocity in Spanish should be able to transfer this knowledge to English without having to relearn the concepts as long as the relevant vocabulary (in English) is available" (Hakuta, 1990, p7).

Program Models that Promote Academic Achievement in L2

Successful program models for promoting the academic achievement of LEP students are those that enable these students to develop, or continue developing, academic skills while learning English. In areas where a significant proportion of the LEP population speaks the same native language, *bilingual education programs* "are highly recommended, since bilingual instruction is the only approach that combines acquisition of the target language (English), academic progress through the native language, and the bonus of bilingualism" (Santiago, 1989, p15).

In schools where too few students share the same native language, a recommended option is teaching *English as a second language (ESL)* using *content-area instruction*, a technique that focuses on using a second language as the medium of instruction for mathematics, science, social studies, and other academic subjects. "Many content-based ESL programs have developed to provide students with an opportunity to learn CALP, as well as to provide a less abrupt transition from the ESL classroom to an all-English medium academic program" (Crandall, 1987, p7).

Several studies have documented the success of *bilingual immersion programs* (also called two-way language development, dual language, and developmental bilingual education). Bilingual immersion programs are full-time programs, for both LEP and English-speaking students, that use two languages--English and the native language of the LEP group--for instruction. In some programs, the languages are used for instruction on alternating days, or one language may be used in the morning and the other in the afternoon. Other programs divide the use of the two languages by content, with some subjects taught in English and others taught in the native language of the LEP students. Because native English-speaking students and LEP students learn through both languages, they can attain proficiency in a second language while continuing to develop skills in their native language. Lindholm & Fairchild (1988), who evaluated a bilingual immersion program in California, found that LEP students attained a high level of achievement relative to national norms, and attributed the success of the students to receiving initial instruction in the native language, which, in turn, facilitated the development of English. They found that in math, reading, and language proficiency achievement, bilingual immersion students significantly outperformed students enrolled in non-bilingual immersion programs (Lindholm & Fairchild, 1988).

Assessment of Academic Achievement

The academic achievement of LEP students can be measured by teacher-made tests in each subject area, by grade point average, by student performance on tests designed by a school district to measure attainment of local school curriculum objectives, or by standardized tests designed to compare the performance of one group of students with that of all students in the United States (Collier, 1989). Navarrete, et al. (1990) suggest using a combination of formal and informal measures to assess the academic ability of LEP students. Formal assessment may indicate how students are performing in relation to other students across the nation, state, or school district. Informal data can be used to support formal test findings or to provide documentation of student progress in instructional areas not covered by formal measures.

Duran (1988) maintains that, although standardized reading tests may provide information on the reading ability of LEP students in relation to other students at the same grade level, they do not provide qualitative information about students' reading skills or information about specific student strengths or weaknesses. He advocates the use of dynamic assessment that, rather than assessing current knowledge and skills, measures individual readiness for learning new knowledge and skills (Duran, 1988). Saville-Troike (1988) views pragmatic vocabulary tests as a valid method of obtaining information on student academic progress, asserting that they measure skills and knowledge central to academic success. She concedes that "radical changes are needed in testing procedures and interpretation," and that "scores by LEP students on such tests should not be taken uncritically at face value, but that debriefing interviews afterward are essential to check on comprehension and reasons for responses" (Saville-Troike, 1988, p21-22).

Conclusion

LEP students have been identified as a group at risk of academic failure. For these students to achieve their full potential, a strong commitment must be made to their educational needs and futures. "Language minority students are a national resource to be nurtured and encouraged to attain their maximum level of achievement, just like any other children in our educational system" (Council of Chief State School Officers, 1990, p51).

References

Chamot, A.U., & O'Malley, J.M. (1987). The cognitive academic learning approach: A bridge to the mainstream. *TESOL Quarterly, (21)*2.

Collier, V.P. (1989). How long? A synthesis of research on academic achievement in a second language. *TESOL Quarterly, (23)*3.

Collier, V.P. (1987). Age and rate of acquisition of second language for academic purposes. *TESOL Quarterly, (21)*6.

Collier, V.P., & Thomas, W.P. (1989). How quickly can immigrants become proficient in school English? *Educational Issues of Language Minority Students, 5.*

Collier, V.P., & Thomas, W.P. (1988). *Acquisition of cognitive-academic second language proficiency: A six-year study.* Paper presented at the American Education Research Association conference, New Orleans.

Council of Chief State School Officers. (1990). *School success for limited English proficient students. The challenge and state response.* Washington, DC: Council of Chief State School Officers.

Crandall, J.A. (1987). *ESL through content-area instruction: Mathematics, science, social studies.* Englewood Cliffs, NJ: Prentice Hall Regents/CAL.

Cummins, J. (1982). *Tests, achievement, and bilingual students. Focus, No.9.* Arlington, VA: National Clearinghouse for Bilingual Education.

Cummins, J. (1981). *The role of primary language development in promoting educational success for language minority students: A theoretical framework.* Los Angeles:, CA: National Dissemination Center.

Duran, R. (1988). *Improving assessment of the reading comprehension skills of language minority students.* Unpublished manuscript.

Hakuta, K. (1990). *Bilingualism and bilingual education: A research perspective. Focus No.* 1. Washington, DC: National Clearinghouse for Bilingual Education.

Lindholm, K., & Fairchild, H.H. (1988). *Evaluation of an "exemplary" bilingual immersion program.* Los Angeles, CA: CLEAR.

Long, M. (1990). Maturational constraints on language development. *Studies in Second Language Acquisition, (12)*3.

Navarrete, C., Wilde, J., Nelson, C., Martinez,R., & Hargett, G. (1990). *Informal assessment in educational evaluation: Implications for bilingual education programs. Focus No.* 3. Washington, DC: National Clearinghouse for Bilingual Education.

Oxford, R. (1989) *The role of styles and strategies in second language learning. ERIC Digest.* Washington, DC: ERIC/CLL.

Santiago, R. (1989). Research and issues in the education of LEP students. In Scarborough, R.H. (Ed.), *Statewide Conference of Children of Limited English Proficiency Proceedings.* Dover, DE: Delaware State Dept. of Public Instruction.

Saville-Troike, M. (1984). What really matters in second language learning for academic achievement? *TESOL Quarterly, (18)*2.

Saville-Troike, M. (1988). *Teaching and testing for academic achievement: Perspectives on an "ill-structured domain."* Unpublished manuscript.

Short, D.J., & Spanos, G. (1989). *Teaching mathematics to limited English proficient students. ERIC Digest.* Washington, DC: ERIC/CLL.

Snow, C., & Hoefnagel-Hohle, M. (1977). Age differences in the pronunciation of foreign sounds. *Language and Speech, (20)* .

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